

ABSTRACT OF THE DISCLOSURE

A saddle element for a static mixer includes a generally ring-shaped support structure having a central axis, concentric inner and outer, radially spaced, circumferentially extending surfaces, and first and second axially spaced, generally parallel edge surfaces. The inner surface of the ring-shaped support structure defines a fluid flow path which extends along the central axis. The edge surfaces of the ring-shaped support structure are located in respective generally parallel transverse planes which are essentially perpendicular relative to the central axis. The saddle element also includes a plurality of crossbars that are located in the flow path. The crossbars have a first end which is closer to the transverse plane of the first edge of the ring-shaped support structure than to the transverse plane of the second edge of the ring-shaped support structure. The crossbars also have a second end which is closer to the transverse plane of the second edge of the ring-shaped support structure than to the transverse plane of the first edge of the ring-shaped support structure. The crossbars are arranged in at least two separate intersecting oblique planes, each of which intersecting oblique planes is disposed at an angle relative to the central axis. The saddle elements may be used in a structure which includes four flip-flopped stacked elements.